

**Climatological Data for February, 1910.**  
**DISTRICT No. 7, LOWER MISSISSIPPI VALLEY.**

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**GENERAL SUMMARY.**

Warm weather prevailed throughout the district at the opening of the month, but on the 2d a change to cooler took place. Moderately cool weather continued until the 8th when a cold wave overspread the district, which continued until the 10th. From the 10th to the 15th, mild temperatures prevailed and maximum readings above 70° occurred throughout the district on the 14th. From the 16th to the 19th the severest cold wave of the month was experienced. From the 20th to the close of the month temperature conditions were generally moderate, except that there was a cool wave on the 22-23d.

Precipitation was mainly in the form of snow in the northern and western, and rain in the southern portions of the district; however, snow and sleet were recorded as far south as central Louisiana on the 17th. The precipitation was distributed through 5 well-defined periods, except that in the Texas and New Mexico areas the precipitation was generally light and scattered. The first period of precipitation was on the 2-3d, when light snows occurred in the northern and moderately heavy rains in the southern portions of the district. The second period occurred from the 8th to the 11th; the amounts were generally light, except that moderately heavy rains fell in Louisiana on the 11th. The third period of precipitation occurred on the 15-16th in the western and 16-18th in the eastern portion of the district and during this time light to heavy snows occurred as far south as central Louisiana. The fourth period of precipitation occurred from the 20th to 24th, and the fifth from the 26th to 28th. Precipitation was generally light during these last two periods, except that heavy rains fell in Arkansas and Louisiana, and the Mississippi area. Taken as a whole, the precipitation was well distributed throughout the month.

**TEMPERATURE.**

Abnormally low average temperatures prevailed during the month, the mean being below the normal over the entire district, except at a few scattered stations in southeastern Louisiana and the central portion of the Mississippi area. The greatest deficiency, more than 5°, occurred in southwestern Arkansas and southwestern Oklahoma; elsewhere the deficiency ranged from 1° to 3°. The maximum temperatures reached, or exceeded, 70° in all portions of the district, except in the Tennessee area, and the highest recorded was 87° at Lafayette, La., on the 22d. The minimum temperatures continued low throughout the month, and on the 17th unusually cold weather prevailed in all portions of the district when temperatures from -8° to -32° were recorded in the western and extreme northern portions, and freezing occurred to the Gulf coast. The lowest temperature recorded was -32° at Elizabethtown, N. Mex.

Monthly mean temperatures and departures from the normal for the various States and areas are reported as follows: Colorado area, 27.8°, -1.8°; New Mexico area, 33.6°, -2.1°; Texas area, 27.5°, -1.6°; Kansas area, 31.4°, 0.0°; Oklahoma, 36.7°, -1.4°; Missouri area, 32.0°, -2.0°; Tennessee area, 36.0°, -4.4°; Arkansas, 39.0°, -2.2°; Mississippi area, 44.4°, -2.6°; Louisiana, 49.9°, -1.6°.

**PRECIPITATION BY DRAINAGE AREAS.**

*Arkansas River and tributaries.*—There was less than the normal amount of precipitation throughout the Arkansas Basin, except at widely scattered stations. Over those stretches of the Arkansas proper that lie in Colorado, Kansas, and Oklahoma, the precipitation from 69 stations averaged 0.84 inch, being about 0.2 inch below the normal. Less than half

the normal precipitation occurred over the Cimarron Valley, where the amounts from 16 stations averaged only 0.39 inch. The precipitation was uniformly light throughout the Canadian Valley, but the deficiency was most pronounced in Oklahoma. The amounts from 59 stations averaged 0.40 inch, being about half the normal amount. There was an average of about 1.00 inch of precipitation over the Verdigris and Neosho valleys, and a general deficiency of about half an inch. The precipitation over that portion of the Arkansas Basin below the Oklahoma-Arkansas line ranged between 1 and 5 inches; the amounts from 16 stations averaged 3.09 inches, being about 0.2 inch below the normal.

*Red River and tributaries.*—Very little precipitation occurred over the stretches of this basin in New Mexico, Texas, and Oklahoma, except that the amounts were heavy at a few stations in northeastern Texas and southeastern Oklahoma. Above the Texas-Arkansas line the amounts from 37 stations averaged 0.83 inch, being about half an inch below the normal. Over those portions of the valley that lie in Arkansas and Louisiana the precipitation was heavier and ranged generally between 3 and 9 inches; the amounts from 17 stations averaged 4.83 inches, being about 0.2 inch above the normal.

*Mississippi south of St. Louis and small tributaries.*—Except in scattered localities, the precipitation was above the normal throughout this drainage area. In the immediate Mississippi Valley, the amounts from 40 stations averaged 4.55 inches, about 0.3 inch above the normal. There was an excess of nearly half an inch over the Valley of the Meramec. The precipitation was unevenly distributed over the White River Basin; the amounts from 16 stations averaged 3.09 inches, being about 0.2 inch below the normal. The precipitation was well distributed over the Yazoo Basin; the amounts from 24 stations averaged 5.20 inches, being about 0.4 inch above the normal. There was an average of 4.89 inches over the Valley of the Big Black and the average excess was about 0.4 inch. Heavy precipitation occurred generally throughout the Ouachita Valley; the amounts from 20 stations averaged 4.83 inches and the average excess was about 0.7 inch.

*Louisiana coastal plain.*—Less than the normal amount of precipitation occurred over this area, except that there was an excess at a few stations in the extreme eastern portion. The amounts reported from 22 stations averaged 3.80 inches, being about 1.2 inch below the normal.

Monthly precipitation and departures from the normal for the various States and areas are reported as follows: Colorado area, 0.90, -0.03; New Mexico area, 0.31, -0.26; Texas area, 0.62, -0.57; Kansas area, 0.67, -0.47; Oklahoma, 0.77, -0.35; Missouri area, 3.28, +0.18; Tennessee area, 4.54, +0.22; Arkansas, 3.66, -0.01; Mississippi area, 5.15, +0.18; Louisiana, 4.61, -0.48.

**SNOWFALL.**

Snow, ranging from light to heavy, fell in all portions of the district, except southern Louisiana. The amounts were heaviest in the higher levels of the Colorado area and in the northeastern portion of the district. The heaviest fall recorded was 65.0 inches at Marshall Pass, Colo., and there was from 8.5 to 29.4 inches over the Missouri area. The most general snows fell on the 16-17th. The warm days during the month were favorable for packing and solidifying the snows in the gulches of the mountain regions, and, generally speaking, the drifts were in good condition to last well into the summer.

The average snowfall (in inches), for the various States and areas derived from the records of such stations as reported snow, is as follows: Colorado area, 13.6; New Mexico area,

3.9; Texas area, 1.8; Kansas area, 3.2; Oklahoma, 4.0; Missouri area, 14.8; Tennessee area, 9.4; Arkansas, 5.9; Mississippi area, 3.9; Louisiana, 3.0.

#### RIVERS.

In Oklahoma all streams remained nearly stationary and were below the normal February stage. There was a gradual fall in the Arkansas above the Arkansas line. The upper portion of the Neosho was frozen from the 23d to the 26th. The lower Arkansas was low throughout the month. The highest stage at Little Rock was 5.4 feet on the 28th.

No changes worthy of mention took place in the Red River above Fulton, Ark.; the monthly range was less than 1 foot. At Fulton, the stages ranged from 6 feet on the 16th to 12.8 feet on the 28th. The stages were low at Shreveport and Alexandria throughout the month. The highest stage at Shreveport was 2.2 feet on the 28th and at Alexandria 11.0 feet on the 6th.

There was a sharp rise in the upper Ouachita during the last 7 days of the month, and the stage at Camden was 20.2 feet on the 28th. At Monroe the stage ranged from 11.2 feet to 19.6 feet, and a general rise was in progress at the close of the month.

Below St. Louis the Mississippi was rising at all stations at the close of the month, with stages as follows: Memphis, 26.4; Helena, 31.0; Arkansas City, 30.1; Vicksburg, 24.3; Natchez,

23.4; Baton Rouge, 17.1; Donaldsonville, 12.5; and New Orleans, 8.3.

#### NOTES.

In southern Kansas moderate weather during the first half of the month permitted much outdoor work, which was prosecuted along all lines. Building was especially active; roads improved rapidly; transportation was not interrupted; and business of all kinds improved. During the latter half, cold weather interfered with all outdoor work and much more care was required in the shipment of perishable products.

Reports from southern Missouri state that winter wheat on uplands suffered some damage and peach buds were seriously injured by the low temperature on February 18. The more or less rapid changes from brief warm to cold periods were generally unfavorable for shippers and dealers in perishable products.

Low stages in the Arkansas River forced the suspension of navigation during the greater part of the month.

A severe local storm struck the town of Leland, Miss., about 4 a. m., February 27, doing considerable damage to smokestacks, storage sheds, and roofs of the Leland Oil Works, and some minor damage to roofs and fences in other portions of the town. The storm moved from the south toward the north; the path of greatest destruction being about 40 yards wide, but without evidence of rotary winds.



















TABLE 2.—*Daily precipitation for February, 1910. District No. 7—Continued.*



